

Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1. (Currently Amended) Cooling apparatus comprising a removable cryogenic refrigerator $[(4)]$ and a thermal interface between the removable cryogenic refrigerator $[(4)]$ and an article to be cooled by the cryogenic refrigerator, wherein the thermal interface consists of a gas held in thermal contact with a cooling surface $[(9)]$ of the refrigerator, within a closed recondensing chamber, $[(12),]$ and the article $[(10)]$ is cooled by thermal conduction through a wall $[(10)]$ of the closed recondensing chamber.

Claim 2. (Currently Amended) Cooling apparatus according to claim 1 wherein the cryogenic refrigerator is mounted within a sleeve, $[(5),]$ and the volume within the sleeve surrounding the refrigerator forms the closed recondensing chamber.

Claim 3. (Currently Amended) Cooling apparatus according to ~~any~~ preceding claim 1, wherein the gas condenses to a liquid $[(12)]$ on the cooling surface $[(9)]$ and falls under gravity into contact with the wall $[(10)]$ of the closed recondensing chamber.

Claim 4. (Currently Amended) Cooling apparatus according to ~~any~~
~~preceeding~~ claim 1, wherein the wall $[(10)]$ of the closed recondensing chamber is
in thermal contact with a further recondensing chamber, $[(11),]$ arranged for
the recondensation of a cryogen gas and sealed from the closed recondensing
chamber of the interface.

Claim 5. (Currently Amended) Cooling apparatus according to ~~any~~
~~preceeding~~ claim 1, wherein the cooling surface $[(9)]$ is provided with fins.

Claim 6. (Currently Amended) A cryostat comprising a cryogen
vessel $[(1)]$ containing a liquefied cryogen, $[(16),]$ and comprising a
recondenser $[(11a)]$ exposed to the interior of the cryogen vessel, $[(1),]$ the
recondenser being connected for cooling by cooling apparatus according to ~~any of~~
~~claims 1-5~~ claim 1.

Claim 7. (Original) An MRI system comprising superconducting
windings contained within a cryostat as claimed in claim 6.

Claim 8. (Currently Amended) A thermal interface, comprising a
closed recondensing chamber $[(5)]$ around a recondensing refrigerator $[(4)]$
and in thermal contact with a component to be cooled through a wall $[(10)]$ of
the closed recondensing chamber, the closed recondensing chamber being filled

with a gas which is recondensed into a liquid [(12)] by the recondensing refrigerator whereby thermal contact between the recondensing refrigerator and the component is provided by recondensation of the gas and through the wall of the closed recondensing chamber.

Claim 9. (Currently Amended) A method for recondensing a cryogen gas [(16)] within a cryostat [(1)] comprising the steps of :

[-] providing a recondensing surface [(11a)] exposed to the cryogen gas within the cryostat and arranged in thermal contact with a wall of a closed recondensing chamber of a thermal interface as recited in claim 8; and

[-] cooling the recondensing surface by cooling the component through the wall of the closed recondensing chamber of the thermal interface.

Claim 10. (Cancelled)